



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,769	10/31/2003	Jerry Rolia	200300266-1	1824
22879 7590 05/21/2010 HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 FORT COLLINS, CO 80528			EXAMINER ZHE, MENG YAO	
			ART UNIT 2195	PAPER NUMBER
			NOTIFICATION DATE 05/21/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

Office Action Summary

Application No.

10/698,769

Applicant(s)

ROLIA ET AL.

Examiner

MENG YAO ZHE

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1- 2, 5-6, 8-13, 15, 18-19, 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clohessy et al., Patent No. 7,334,228 (hereafter Clohessy) in view of Brelin, Patent No. 6,647,448 (hereafter Brelin) further in view of O'Conner et al., Pub. No. 2003/0056126 (hereafter O'Conner).
2. Brelin and Clohessy were cited in the previous office action.
2. As per claims 1, 27, Clohessy teaches a method of governing access to resources in a computing utility facility, comprising:

receiving a demand profile associated with an application that identifies the resources required from a pool of resources in the computing utility facility during one or more demand cycles (Column 5, lines 25-30);

admitting an application to the computing utility facility if resources required for the application can be provided from the pool of resources in accordance with the

demand profile and associated one or more demand cycles (Fig 4, unit 10, 114; Column 6, lines 2-15);

assigning available resources from the pool of resources in response to a request from the applications admitted to the computing utility facility (Column 13, lines 64-67; Column 14, lines 40-45);

policing requests for resources from the admitted applications and intercepting applications if the resources being requested are outside an acceptable range (Column 10, lines 26-32, lines 45-48, lines 60-68).

Clohesy does not specifically teach unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources; and wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots.

However, Brelin teaches wherein admitting the application further comprises: unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources (Column 6, line 65-Column 7, line 7; Column 7, lines 8-18) for the purpose of allowing the system to maintain and update the scheduling calendar to reflect changes in the system.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings for Clohesy with wherein admitting the

application further comprises: unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources, as taught by Berlin, because it allows the system to maintain and update the scheduling calendar to reflect changes in the system.

Brelin does not specifically teach wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots.

However, Brelin does teach that many different requests may be filed by an application (Fig 4: note that the posting device may post n different requests) and that each request may demand for resource units (Column 8, lines 22-30).

Since Brelin does not restrict his requests from each application to be the same requests, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention that in the case where each request made by the application require different resource units at different time slots, one would result in a situation as claimed by the applicant—wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots (i.e. at time slot 1, the application wants subunits A and B; next time slot, it wants subunits A, B and C).

Moreover, as a further proof to the fact that resource demand may vary across each time slot, O'Connor teaches that resource demands will vary across each time

slot/period for the purpose of meeting dynamic needs of the system (Abstract; Para 10, 32).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Clohessy in view of Brelin with the specifics of wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots, as taught by O'Connor, because it helps to meet the dynamic needs of the system.

3. As per claim 14, Clohessy teaches an apparatus for governing access to resources in a computing utility facility comprising:

A processor capable of executing instructions (Fig 2B, unit 18);

A memory containing instructions when executed cause the processor to receive a demand profile associated with an application that identifies the resources required from a pool of resources in the computing utility facility during one or more demand cycles, admit an application to the computing utility facility if the resources required for the application can be provided from the pool of resources in accordance with the demand profile and associated one or more demand cycles; and assign available resources from the pool of resources in response to a request from the applications admitted to the computing utility facility (Fig 4, unit 10, 114; Column 6, lines 2-15; Column 13, lines 64-67; Column 14, lines 40-45); and

Wherein the demand profile associated with an application is created through data collection or statistical estimation (Column 5, lines 29-35).

Clohesy does not specifically teach unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources; and wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots.

However, Brelin teaches wherein admitting the application further comprises: unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources (Column 6, line 65-Column 7, line 7; Column 7, lines 8-18) for the purpose of allowing the system to maintain and update the scheduling calendar to reflect changes in the system.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings for Clohesy with wherein admitting the application further comprises: unfolding the one or more demand cycles from the demand profile associated with the application into time slots requiring resources from the pool of resources, as taught by Berlin, because it allows the system to maintain and update the scheduling calendar to reflect changes in the system.

Brelin does not specifically teach wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots.

However, Brelin does teach that many different requests may be filed by an application (Fig 4: note that the posting device may post n different requests) and that each request may demand for resource units (Column 8, lines 22-30).

Since Brelin does not restrict his requests from each application to be the same requests, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention that in the case where each request made by the application require different resource units at different time slots, one would result in a situation as claimed by the applicant—wherein the amount of resources required from the pool of resources by the application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots (i.e. at time slot 1, the application wants subunits A and B; next time slot, it wants subunits A, B and C).

Moreover, as a further proof to the fact that resource demand may vary across each time slot, O'Connor teaches that resource demands will vary across each time slot/period for the purpose of meeting dynamic needs of the system (Abstract; Para 10, 32).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Clohessy in view of Brelin with the specifics of wherein the amount of resources required from the pool of resources by the

application varies across each of the time slots such that assignment of resources is tailored to varying demand across each of the time slots, as taught by O'Connor, because it helps to meet the dynamic needs of the system.

4. As per claims 2, 15, Brelin teaches comparing the time slots requiring resources with a staging calendar of time slots representing availability of resources in the pool of resources (Column 6, lines 5-10; Column 8, lines 5-20; Column 9, lines 53-56); and converting time slots from the staging calendar to a permanent calendar when comparison indicates the time slots requiring resources from the demand profile are available for assignment (Column 9, lines 53-56) for the purpose of allowing the system to maintain and update the scheduling calendar to reflect changes in the system.

3. As per claims 5, 18, Brelin teaches wherein unfolding the one or more demand cycles includes a demand cycle describing a demand for resources from a resource pool during weekdays and another demand cycle describing another demand for resources during weekends (Column 7, lines 20-32).

As per claims 6, 19, Brelin teaches wherein converting time slots from the staging calendar to a permanent calendar comprises: copying the time slots from the staging calendar to the permanent calendar; and preallocating the requested resources from the pool of resources according to the permanent calendar schedule (Column 8, lines 10-20, lines 25-40: each most recently updated calendar corresponds to the permanent calendar; Fig 9, unit 95).

4. As per claims 8, 21, Brelin teaches policing requests for resources from the admitted applications to determine if the resources being requested are within an acceptable range (Column 10, lines 5-10, lines 36-50).
5. As per claims 9, 22, Brelin teaches intercepting a request for resources from an application admitted to access a pool of resources (Fig 9, unit 91); determining if resource request is within an acceptable range of demands based upon the demand profile of the application (Fig 9, unit 93); indicating an application is not entitled to the request when the determination indicates the request is outside the acceptable range of demands (Fig 9, unit 90); and indicating an application is entitled to the request when the determination indicates an application is within the acceptable range of demands (Fig 9, unit 97).
6. As per claims 10, 23, Brelin teaches arbitrating the allocation of limited resources between two or more applications entitled to receive the requested resources (Column 8, lines 60-67).
7. As per claims 11, 24, Brelin teaches wherein the arbitration comprises: detecting a conflict in providing requested resources to two or more admitted applications entitled to receive the requested resources; determining if at least one application can forego receiving the requested resources causing the conflict for a predetermined period of time; instructing the at least one application to forego receipt of the requested resources for a period of time in accordance with the determination; allocating resources to the

remaining admitted applications entitled to receive the requested resources in accordance with a priority scheme (Column 8, lines 60-67).

8. As per claims 12, 25, Brelin teaches wherein the priority scheme includes selecting admitted applications to receive the requested resources on a first-come-first-serve basis (Column 8, lines 60-67).

9. As per claims 13, 26, Brelin teaches wherein the priority scheme includes selecting admitted applications to receive the requested resources in according to economic and class of services factors (Column 7, lines 15-32; Column 9, lines 50-55).

5. Claims 3-4, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clohessy et al., Patent No. 7,334,228 (hereafter Clohessy) in view of Brelin, Patent No. 6,647,448 (hereafter Brelin) further in view of O'Conner et al., Pub. No. 2003/0056126 (hereafter O'Conner) further in view of Funke et al., Patent No. 5,845,201 (hereafter Funke).

10. Funke was cited in the previous office action.

11. As per claims 3, 16, Brelin teaches wherein unfolding the one or more demand cycles includes a caveat time cycle based upon an event that occurs over a long-period of time (Column 7, lines 20-35).

Brelin does not specifically teach selecting from a set including special events, holidays, seasonal occurrences and emergencies.

However, Funke teaches a set including special events, holidays, seasonal occurrences and emergencies for the purpose of establishing timely performances (Column 32, lines 1-17).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings Brelin with a set including special events, holidays, seasonal occurrences and emergencies, as taught by Funke, because it establishes timely performances.

12. As per claims 4, 17 Brelin teaches wherein the caveat time cycle is based upon knowing when at least one particular event is going to occur in the future (Column 7, lines 20-32).

13. Claims 7, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clohessy et al., Patent No. 7,334,228 (hereafter Clohessy) in view of Brelin, Patent No. 6,647,448 (hereafter Brelin) further in view of O'Conner et al., Pub. No. 2003/0056126 (hereafter O'Conner) further in view of Contestabile, Patent No. 7,123,141 (hereafter Contestabile).

14. Contestabile was cited in the previous office action.

15. As per claims 7, 20, Brelin does not specifically teach wherein converting time slots from the staging calendar to a permanent calendar comprises: indicating the time slots in the staging calendar associated with the requested resources are permanent

and not for staging purposes; and pre-allocating the requested resources from the pool of resources according to the permanent calendar schedule.

However, Contestabile teaches converting temporary calendars into permanent calendars for the purpose of making changes permanent (Column 18, line 66-Column 19, line 18).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Brelin with converting temporary calendars into permanent calendars for the purpose of making changes permanent, as taught by Contestabile, such that it is possible to indicate the time slots in the staging calendar associated with the requested resources are permanent and not for staging purposes; and pre-allocating the requested resources from the pool of resources according to the permanent calendar schedule, because it allows to one to make permanent changes to the calendar.

Response to Arguments

6. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

/Mengyao Zhe/